AMENDMENTS TO THE SPECIFICATION

IN THE SPECIFICATION:

Please amend the paragraph beginning on page 4, line 1 as follows:

As shown in FIGS. 22A and 22B for example, in an X-ray film ~~90~~ 190, by illuminating a laser beam, melting and transpiration take place at the emulsion surface due to the energy of the laser beam. In this process, a large number of minute air bubbles arise at the interior of an emulsion layer ~~92~~ 192 which swells, and a dot is formed.

Please amend the paragraph beginning on page 4, line 7 as follows:

As shown in FIG. 22A, in a highly-visible dot ~~94~~ 194, the surface projects (is convex) due to the large number of air bubbles arising in the emulsion layer ~~92~~ 192. The irregular reflection of the light at the border films between the large number of minute air bubbles is promoted, and becomes great in the large change in the reflected light amounts at the interior and the exterior of the dot ~~94~~ 194.

Please amend the paragraph beginning on page 4, line 13 as follows:

When characters or symbols are formed by an arrangement of such dots, the dot diameter and the interval between dots must be set appropriately.

Further, high visibility, i.e., a good finished quality, is required of each of the individual dots ~~94~~ 194.

Please amend the paragraph beginning on page 4, line 17 as follows:

At this time, for example, when energy of an amount greater than needed is applied to the emulsion layer ~~92~~ 192 by a laser beam, as shown in FIG. 22B, the emulsion layer ~~92~~ 192 melts and opens, such that a dot ~~98~~ 198, which exposes a base layer ~~96~~ 196 which is the support, is formed.

Please amend the paragraph beginning on page 4, line 22 as follows:

In the case of the X-ray film ~~90~~ 190 at which the emulsion layer ~~92~~ 192 has high transmittance, it is not possible to visually perceive ~~such a~~ the dot ~~98~~ 198 because it is difficult to differentiate between the emulsion layer ~~92~~ 192 and the exposed based layer ~~96~~ 196. Namely, the visibility of the dot ~~98~~ 198 is extremely low, and the visibility of characters, symbols or the like formed by a dot arrangement including these dots ~~98~~ 198 also is extremely low.

Please amend the paragraph beginning on page 5, line 4 as follows:

Accordingly, when forming a dot having high visibility (the dot ~~94~~ 194) on an X-ray film by using a laser beam, the time over which the laser beam is illuminated onto the X-ray film is controlled appropriately such that proper

deformation is made to occur at the X-ray film due to the energy of the laser beam.

Please amend the paragraph beginning on page 39, line 17 as follows:

A plurality of small holes (not illustrated) are formed in the outer peripheral surface of the suction drum 126. The X-ray film 112, which is trained around the outer peripheral surface of the suction drum 126, is sucked and held due to negative pressure being supplied to these small holes. Further, at the marking device 110, as an example, the suction drum 126 can move upwardly in FIG. ~~17~~ 10 due to the urging force of an unillustrated urging means. In this way, at the marking device 110, a constant tension is applied to the X-ray film 112.

Please amend the paragraph beginning on page 40, line 8 as follows:

The path roller ~~28~~ 128 is provided in a vicinity of the small roller 124. Due to the X-ray film 112 being trained around this path roller ~~28~~ 128, the conveying direction is switched to upward.

Please amend the paragraph beginning on page 40, line 11 as follows:

A print roller 130 is provided above the path roller ~~28~~ 128. Due to the X-ray film 112 being trained around the print roller 130, the X-ray film 112 is

directed in the horizontal direction. At this time, due to a predetermined tension being applied to the X-ray film 112, the X-ray film 112 is trained tightly around the peripheral surface of the print roller 130 with the emulsion surface 116 side thereof facing outward.

Please amend the paragraph beginning on page 44, line 4 as follows:

In this way, at the marking device 110, the marking pattern is formed on the X-ray film 112 at predetermined intervals. Namely, at the marking device 110, as shown in FIG. 10B, by illuminating the laser beam LB with the conveying direction of the X-ray film 112 (the direction of arrow ~~A~~ L in FIG. 10B) being the subscanning direction and the scanning direction of the laser beam LB being the main scanning direction, the marking pattern MP in the form of dots is formed. Note that FIG. 10B illustrates, as an example, the marking pattern MP which is formed by letters of the alphabet in dot arrangements of 5.times.5 dots.

Please amend the paragraph beginning on page 47, line 2 as follows:

Further, in the state of steady output, as shown in FIG. 13A, the laser beam LB illuminated onto the X-ray film 112 is a Gaussian beam which has a Gaussian distribution and whose intensity peaks at the center of the beam (the

single-dot chain line in FIG. 13A). In this Gaussian beam, a line (the dashed line in FIG. 13A) at which the intensity is about 86.5% ~~less than~~ of the peak value is the beam diameter. The dot is formed on the X-ray film 112 in accordance with this beam diameter.

Please amend the paragraph beginning on page 51, line 14 as follows:

In order to prevent such a phenomenon, in a vicinity of the central frequency f_0, the laser control device 142 uses a range from frequency fa to frequency fb, which are frequencies of a range (the range shown by the two-dot chain line in FIG. ~~23~~ 15) in which the deflection efficiency Pe is for example, ±10% with respect to an average deflection efficiency Pea of a region where there is little variation in the deflection efficiency and the deflection efficiency is substantially flat. Further, the marking device 140 is provided such that the laser beam LB, which is deflected in the range of these frequencies fa to fb, is illuminated onto the region on the X-ray film 112 where the marking pattern MP is to be formed.

Please amend the paragraph beginning on page 62, line 11 as follows:

For example, as shown in FIG. 20A, a mirror ~~54~~ 154 which reflects the laser beam LB is provided on the optical path of the laser beam LB between the laser oscillating tube 144 and the beam deflector 146. A damper ~~56~~ 156 is

provided in the direction in which the laser beam LB is reflected by the mirror ~~54~~ 154. Usually, the laser beam LB is illuminated by the mirror ~~54~~ 154 onto the damper ~~56~~ 156. The laser beam LB can be made incident onto the beam deflector 146 in accordance with the timing for marking the X-ray film 112.

Please amend the paragraph beginning on page 62, line 19 as follows:

In this way, there is no source of heat at least within the lens barrel 148, and there is no need to cool the lens barrel 148. Further, there is no need to continue to output a deflection signal to the beam deflector 146 in order to illuminate the laser beam LB onto the damper ~~56~~ 156.

Please amend the paragraph beginning on page 62, line 24 as follows:

Further, as shown in FIG. 20B, a damper ~~58~~ 158 may be provided at the exterior of the lens barrel 148, at a position which is set apart from the illumination region of the laser beam LB onto the X-ray film 112. In this way, it is possible to suppress the unnecessary generation of heat by the lens barrel 148 and the marking head 140 due to the laser beam LB, and there is no source of heat within the lens barrel 148. Therefore, there is no need to cool the lens barrel 148.

Please amend the paragraph beginning on page 63, line 7 as follows:

Moreover, as shown in FIGS. 21A and 21B, a damper ~~60~~ 160 may be provided within the laser control device 142. At this time, as shown in FIG. 21A, the mirror ~~54~~ 154 may be disposed between the laser oscillating tube 144 and the beam deflector 146, and a mirror ~~62~~ 162 may be disposed in the direction of reflection of the laser beam LB by the mirror ~~54~~ 154, and the laser beam LB may be illuminated onto the damper ~~60~~ 160 provided in the laser control device 142.

Please amend the paragraph beginning on page 63, line 14 as follows:

In addition, as shown in FIG. 21B, by providing a mirror ~~64~~ 164 at the exterior of the lens barrel 148 at a position which is set apart from the illumination region of the laser beam LB onto the X-ray film 112, and by illuminating the laser beam LB onto this mirror ~~64~~ 164, the laser beam LB can be reflected toward the damper ~~60~~ 160 provided at the laser control device 142 and can be illuminated onto the damper ~~60~~ 160.

Please amend the paragraph beginning on page 64, line 2 as follows:

Therefore, it is possible to cool the damper ~~60~~ 160 by using the means for cooling the amplifier for the laser power source.

Please amend the paragraph beginning on page 64, line 9 as follows:

Therefore, a sensor, which monitors or measures the oscillation output of the laser oscillating tube 144, may be provided at the laser control device 142 instead of the damper ~~60~~ 160. Or, a half-mirror, which reflects toward this sensor a portion of the laser beam LB illuminated onto the damper ~~60~~ 160, or a mirror, which can reflect, toward the sensor and at an arbitrary timing, the laser beam LB illuminated onto the damper ~~60~~ 160, may be provided.